What is the Vehicle Probe Project?

“The VPP works with a “traffic probe data marketplace” first created in 2008. Three highly qualified vendors (HERE, INRIX and TomTom) were selected by a team of agency members to provide data to agencies at a cost that was negotiated by the Corridor. The data is subjected to rigorous validation for reliability. In addition, all data, regardless of vendor, is available to each of the participating agencies providing a truly shared effort.”

“The use of the marketplace results in a savings of 55 - 62% per lane mile from free market pricing” depending on vendor.
Agenda to Cover Today

Probe Data - Task 1
- Status of Coverage for Participating States
- Status of Vendor Contracts
- Ancillary Products now available

Validation Program – Task 2
- Status of State Validations
- Quarterly Validations/Arterial Report Updating
- FY Calendar Development
- TrafficCast Contracting
- Quarterly Reporting
- Report Formatting

RITIS Management – Task 3
### Overview of Summary Coverage for Participating States

<table>
<thead>
<tr>
<th>State</th>
<th>Freeway</th>
<th>Arterial</th>
<th>Total Miles</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Hampshire</td>
<td>215</td>
<td>0</td>
<td>215</td>
<td>Coverage on I-95.93, Spaulding, Everett TPKs</td>
</tr>
<tr>
<td>New Jersey</td>
<td>920</td>
<td>8,476</td>
<td>9,396</td>
<td>State is all-in</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>2,752</td>
<td>20,415</td>
<td>23,167</td>
<td>State is all-in</td>
</tr>
<tr>
<td>Maryland</td>
<td>785</td>
<td>6,284</td>
<td>7,069</td>
<td>All in. Redundant coverage on select corridors</td>
</tr>
<tr>
<td>Washington DC</td>
<td>28</td>
<td>361</td>
<td>389</td>
<td>State is all-in</td>
</tr>
<tr>
<td>Virginia</td>
<td>1,571</td>
<td>15,974</td>
<td>17,545</td>
<td>State is all-in</td>
</tr>
<tr>
<td>North Carolina</td>
<td>1,716</td>
<td>12,834</td>
<td>14,550</td>
<td>State is all-in</td>
</tr>
<tr>
<td>South Carolina</td>
<td>979</td>
<td>10,167</td>
<td>11,146</td>
<td>State is all-in</td>
</tr>
<tr>
<td>Georgia</td>
<td>1,411</td>
<td>14,331</td>
<td>15,742</td>
<td>State is all-in</td>
</tr>
<tr>
<td>Total</td>
<td>10,377</td>
<td>88,842</td>
<td>99,219</td>
<td></td>
</tr>
</tbody>
</table>
New vendor products are now available through the I-95 Corridor Coalition’s Vehicle Probe Project’s Marketplace

Since 2009, the I-95 Corridor Coalition in coordination with the University of Maryland has co-managed a probe data procurement project titled the Vehicle Probe Project that provides access for its members to procure accurate, reliable, and real-time traffic data. The Coalition has contracted with INRIX, HERE, and TomTom to provide this data.

Why procure probe data through the marketplace? The Coalition’s economies of scale has driven down the cost per mile of probe data, and agencies do not have to negotiate through RFP’s and their own contract management and data validation is routinely conducted to confirm the reliability of the data.

Three new HERE products are now being offered through the Coalition marketplace:
- HERE Traffic Service /HERE Real Time Traffic delivers up-to-the-minute information about traffic conditions and incidents. It helps drivers by improving the accuracy of arrival times.
- Traffic Analytics: Speed Data and Trip Data is a suite of data products that help enterprise and government customers make informed decisions such as road network performance.
- HERE Location Platform (Application Programming Interfaces (APIs) and Software Development Kits (SDKs) for native mobile operating systems) delivers global location-based services that can bring location-intelligent products and services to the market. HERE Platform features and functionalities are offered through seven key components: Maps, Geocoder, Direction, Places, Traffic, Transit and Visualization.

Five new Inrix products are now being offered through the Coalition marketplace:
- XD Segment Traffic Archive Data Downloader provides a cost-effective option for access to XD archives at a fraction of real time data fees.
- Dangerous Slowdowns API delivers safety-focused alerts to augment current data or can be a cost-effective option for rural states.
- Trip Reports offers reduced price access to data to support freight and transportation planning.
- National Performance Management Research Data Set (NPMRDS) Extensions offers additional datasets to extend and expand the utility of the dataset available from USDOT required for federal performance measures reporting.
- State/County TMC Location Referencing Network Shapefile accelerates TMC segment integration for agencies who can accept the required licensing terms.

**These Options are added as part of Task 1 in the Work Plan /MOU now. Some modules have additional pricing.**
Updates to the Validation Program – Task 2

- Status of Validations
- Setting a FY Calendar
- Major Steps in the Validation Program
- Quarterly Validations/Arterial Report Updating
- Traffic Cast Contracting
- Quarterly Validation Status Reporting
- Report Formatting
## Status of State Validations for FY2018

### State Contracts for FY2019

<table>
<thead>
<tr>
<th>State</th>
<th>Validation Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Jersey</td>
<td>Validation US1/US9 April 2018 Completed</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>Validation I-79 October 2017 Completed</td>
</tr>
<tr>
<td>Maryland</td>
<td>US-40 Validation In Process</td>
</tr>
<tr>
<td>Washington DC</td>
<td>Not Done</td>
</tr>
<tr>
<td>North Carolina</td>
<td>I-240, 40, 26, July/August 2017 Completed, NC 55 New validation in process</td>
</tr>
<tr>
<td>South Carolina</td>
<td>Not Done</td>
</tr>
<tr>
<td>Georgia</td>
<td>Validation I-75 February 2018 Completed</td>
</tr>
</tbody>
</table>

*New Hampshire and Maine in process to procure probe data through VPP*

---

### FY2019

- Waiting on new contract
- Multi-year contract /PA TPK??
- New contract to be written for 9-1
- ???
- Multi – year contract
- RFP still in process
- Awaiting signature on new contract

**Arterials**
- Managed Lanes
- Reversible Lanes
- Tunnels
- Bridges

---

*June 18, 2018*
Task 2

FY2019 Calendar – Why set it now?

- Helps with planning for equipment deployment
- Helps with staff management at UMD
- Look to spread out validations on a quarterly basis

June 18, 2018
We need State locations defined in order to start.

TrafficCast sets out sensors & collects data

Data is sent to UMD for processing

Probe Vendors provide data to UMD

UMD publishes the final report

Comments

- Many people / jurisdictions involved
- Iterative process

- Slight changes in sensor placement due to mounting considerations

- Define validation paths based on final sensor locations
- Filter, aggregate, and evaluate data

- Vendor TMC definitions differ slightly
- Path --> vendor-specific TMC mapping
- Calculate equivalent path speeds

- Quantify probe data performance under a variety of conditions
Task 2

Updates to the Validation Program

For FY2019 we are proposing:

4 Quarterly Validations OR
3 Quarterly Validations + Arterial Report

What does this mean?

The arterial report would provide an update to an original report published in 2015 (see www.i95coalition.org) under the VPP section which investigated the quality of INRIX probe data on arterials based on a number of separate validation efforts. The update on the report would focus on tracking trends in both traditional validation metrics and slowdown metrics since 2015, and additionally include results for two additional probe vendors (HERE and TomTom)
Additional Updates to the Validation Program

Traffic Cast Equipment Contracting

- A new contract is in process targeted for July 1.
- Kathy Frankle to finalize.
- 4 Quarterly Validations being used in the estimate for the new contract.
- Three Zones with differing costs based on travel.
- Important to plan out calendar year to reserve use of equipment
Additional Updates to the Validation Program

Quarterly Reporting

- January, April, July, October
- Every state will be on the same page
- Using the PennDOT template for reporting
- Will come via email from Kathy
Let’s talk about Report Formatting

☑ What sections of the report do you find most useful?

☑ Are there any part of the report that you find unnecessary?

☑ It has been suggested that color coding the executive summary results to indicate whether results are in/out of spec would be helpful. Is this something that you would like to see?

☑ Feedback has been that the summary tables are most important. Currently there are more detailed path-level results in the Appendix which take up quite a few pages. Would it make sense to provide a spreadsheet with the path-level results instead or do you find it valuable to keep it in the report document?

☑ Do we want to add a definition for latency and slowdown analysis in the report?
Additional General Info

- RITIS is managed by CATT not I-95 even though the MOU’s contain both. RITIS is typically labeled Task 3.

- Do you want any update on Validation to be incorporated into the PDA/User Group meetings? As a showcase presentation?